

Diabetes Indicators and Data Source Internet Tool Reference

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National Center for Chronic Disease Prevention and Health Promotion

Diabetes Indicators and Data Source Internet Tool

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View All Indicators

Select an Indicator to view by clicking the links below. To sort by the name or type of Indicator please click on the header title.

View All Indicators

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1	A1c Level	Secondary Prevention for Persons with Diabetes
2	A1c Test	Secondary Prevention for Persons with Diabetes
3	Aspirin Therapy	Secondary Prevention for Persons with Diabetes
4	Blood Pressure Level	Secondary Prevention for Persons with Diabetes
5	Cardiovascular Death in Persons with Diabetes	Diabetes-related Mortality
6	Cholesterol Tested	Secondary Prevention for Persons with Diabetes
7	Dental Exam	Secondary Prevention for Persons with Diabetes
8	Diabetes Care Related Office Visit to Your Health Professional	Secondary Prevention for Persons with Diabetes
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10	Diabetes-related Hospitalizations	Diabetes-related Complications
11	Diabetes-related Mortality	Diabetes-related Mortality
12	Dilated Eye Exam	Secondary Prevention for Persons with Diabetes
13	Flu Vaccination	Secondary Prevention for Persons with Diabetes
14	Foot Exam	Secondary Prevention for Persons with Diabetes
15	Hospitalization for Cardiovascular Disease among Persons with Diabetes	Diabetes-related Complications
16	Hospitalization for Lower Extremity Amputations	Diabetes-related Complications
17	Incidence of End-Stage Renal Disease Attributed to Diabetes	Diabetes-related Complications
18	Incidence of Gestational Diabetes	Prevalence & Incidence of Diabetes
19	LDL-C Level	Secondary Prevention for Persons with Diabetes
20	Monitoring for Diabetic Nephropathy	Secondary Prevention for Persons with Diabetes
21	Obesity - Primary Prevention in Adults	Lifestyle
22	Obesity - Secondary Prevention in Adults with Diabetes	Lifestyle

23	Overweight or Obese - Secondary Prevention in Adults with Diabetes	Lifestyle
24	Overweight or Obese- Primary Prevention in Adults	Lifestyle
25	Pneumococcal Vaccination	Secondary Prevention for Persons with Diabetes
26	Prevalence of Cardiovascular Complications among Persons with Diabetes	Diabetes-related Complications
27	Prevalence of Diabetes in Adults	Prevalence & Incidence of Diabetes
28	Prevalence of Diabetes in Children	Prevalence & Incidence of Diabetes
29	Prevalence of Diabetic Retinopathy	Diabetes-related Complications
30	Prevalence of End-Stage Renal Disease	Diabetes-related Complications
31	Prevalence of Foot Ulcers	Diabetes-related Complications
32	Regular Physical Activity - Primary Prevention in Adults	Lifestyle
33	Regular Physical Activity - Secondary Prevention in Adults with Diabetes	Lifestyle
34	Self-Blood Glucose Monitoring	Diabetes Self-care
35	Smoking - Primary Prevention	Lifestyle
36	Smoking - Secondary Prevention in Adults with Diabetes	Lifestyle
37	Unhealthy Days among Adults with Diabetes	Diabetes-related Complications
38	Visual Foot Exam (self or someone other than health professional)	Diabetes Self-care

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INDICATOR **A1c Level**
CATEGORY **Secondary Prevention for Persons with Diabetes**

GENERAL DEFINITION	The percentage of persons with diabetes who have an HbA1c level that indicates poor glucose control.
RATIONALE	Glycemic control is essential for preventing diabetes-related complications. A1c exams provide information on blood sugar levels over the prior 2-3 months. This process indicator provides information about the quality of diabetes care provided and/or diabetes self-management.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	Health Disparities Collaboratives Indian Health Service National Diabetes Quality Improvement Alliance (formerly DQIP) NCQA
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective.
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association • National Quality Forum, National Voluntary Consensus Standards for Adult Diabetes Care. Available from: The National Quality Forum, A601 Thirteenth Street, NW, Suite 500 North, Washington, DC 20005; Tel: 202.783.1300.
DATA SUMMARY	<ul style="list-style-type: none"> • J.B. Saaddine, M.M. Engelgau, G.L. Beckles, E.W. Gregg, T.J. Thompson, and K.M.V. Narayan. (2001). A Diabetes Report Card for the United States: Quality of Care in the 1990s. Annals of Internal Medicine, 136(8): 565-574.
RELATED LINKS	<ul style="list-style-type: none"> • American Diabetes Association: A1c test (http://www.diabetes.org/main/type1/medical/blood_sugar/glyc_hemoglobin.jsp) • Guide to Community Preventive Services (http://www.cdc.gov/diabetes/projects/community.htm) • National Diabetes Education Program - Check Your Hemoglobin A1c I.Q. (http://ndep.nih.gov/materials/pubs/HbA1c/HbA1c-checkIQ.htm) • The Diabetes Control and Complications Trial Research Group. (1993). The Effect of Intensive Treatment of Diabetes on the Development and Progression of Long-Term Complications in Insulin-Dependent Diabetes Mellitus. New England Journal of Medicine, 329(14): 977-986. (http://content.nejm.org/cgi/content/full/329/14/977?ijkey=u.d9c1Au9cpxs) • The National Glycohemoglobin Standardization Program (http://www.missouri.edu/~diabetes/ngsp.html)
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INDICATOR **A1c Test**
CATEGORY **Secondary Prevention for Persons with Diabetes**

GENERAL DEFINITION	The percentage of persons with diabetes who have had at least two A1c tests during the past year.
RATIONALE	Glycemic control is essential for preventing diabetes-related complications. A1c exams provide information on blood sugar levels over the prior 2-3 months. This process indicator provides information about the quality of diabetes care provided.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC Health Disparities Collaboratives Indian Health Service National Diabetes Quality Improvement Alliance (formerly DQIP) NCQA
DDT NATIONAL OBJECTIVE	This indicator links to the Division of Diabetes Translation (DDT) National Objective to increase the percentage of persons with diagnosed diabetes who receive A1c tests.
HP 2010 OBJECTIVE	Objective 5-12: To increase the proportion of adults with diabetes who have at least two glycosylated hemoglobin measurements during the year.
	<p>BASELINE Fifty-nine percent of adults aged 18 years and older with diabetes had at least two glycosylated hemoglobin measurements during the year, (BRFSS, age-adjusted, 2000).</p> <p>TARGET Fifty percent of adults aged 18 years and older with diabetes having at least two glycosylated hemoglobin measurements during the year.</p>
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association National Quality Forum, National Voluntary Consensus Standards for Adult Diabetes Care. Available from: The National Quality Forum, A601 Thirteenth Street, NW, Suite 500 North, Washington, DC 20005; Tel: 202.783.1300. Use of Glycated Hemoglobin and Microalbuminuria in the Monitoring of Diabetes Mellitus. Summary, Evidence Report/Technology Assessment: Number 84. AHRQ Publication No. 03-E048, July 2003. Agency for Healthcare Research and Quality, Rockville, MD.
DATA SUMMARY	<ul style="list-style-type: none"> Diabetes Surveillance System J.B. Saaddine, M.M. Engelgau, G.L. Beckles, E.W. Gregg, T.J. Thompson, and K.M.V. Narayan. (2001). A Diabetes Report Card for the United States: Quality of Care in the 1990s. Annals of Internal Medicine, 136(8): 565-574. Medicare Health Plan Compare
RELATED LINKS	<ul style="list-style-type: none"> American Diabetes Association: A1c test (http://www.diabetes.org/main/type1/medical/blood_sugar/glyc_hemoglobin.jsp) Guide to Community Preventive Services (http://www.cdc.gov/diabetes/projects/community.htm) Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) National Diabetes Education Program - Check Your Hemoglobin A1c I.Q. (http://ndep.nih.gov/materials/pubs/HbA1c/HbA1c-checkIQ.htm) The National Glycohemoglobin Standardization Program (http://www.missouri.edu/~diabetes/ngsp.html)
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INDICATOR **Aspirin Therapy**
CATEGORY **Secondary Prevention for Persons with Diabetes**

GENERAL DEFINITION	The percentage of persons with diabetes who take aspirin at a specified frequency.
RATIONALE	Cardiovascular disease is the leading cause of diabetes-related deaths. People with diabetes have a two- to fourfold increase in the risk of dying from the complications of cardiovascular disease. Aspirin has been found to block the mechanisms which increase risk for cardiovascular events. Aspirin is recommended as a primary and secondary strategy to prevent cardiovascular events in individuals with and without diabetes, if no contraindications exist. This process measure reflects the quality of diabetes care and/or diabetes self-management.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	Health Disparities Collaboratives Indian Health Service National Diabetes Quality Improvement Alliance
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	Objective 5-16: To increase the proportion of adults with diabetes who take aspirin at least 15 times per month.
	<p>BASELINE Twenty percent of adults aged 40 years and older with diabetes took aspirin at least 15 times per month (NHANES, age-adjusted, 1988-1994).</p> <p>TARGET Thirty percent of adults aged 40 years and older with diabetes take aspirin at least 15 times per month.</p>
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association
DATA SUMMARY	<ul style="list-style-type: none"> • Prevalence of Aspirin Use to Prevent Heart Disease -- Wisconsin, 1991, and Michigan, 1994 • Strategies for Reducing Morbidity and Mortality from Diabetes Through Health-Care System Interventions and Diabetes Self-Management Education in Community Settings
RELATED LINKS	<ul style="list-style-type: none"> • American College of Cardiology (http://www.acc.org/) • Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) • National Heart, Lung, and Blood Institute (http://www.nhlbi.nih.gov/index.htm)
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INDICATOR **Blood Pressure Level**
CATEGORY **Secondary Prevention for Persons with Diabetes**

GENERAL DEFINITION	The percentage of persons with diabetes who have systolic and diastolic blood pressure values indicating a certain level of control as defined by the user.				
RATIONALE	Persons with diabetes are at increased risk of complications from cardiovascular disease (CVD), such as hypertension. CVD is the leading cause of death for people with diabetes. Early detection of elevated blood pressure levels and appropriate treatment can decrease risk for both macrovascular and microvascular complications. This process measure provides information about the quality of diabetes care and/or diabetes self-management.				
ORGANIZATION(S) RECOMMENDING THE INDICATOR	Health Disparities Collaboratives Indian Health Service National Diabetes Quality Improvement Alliance (formerly DQIP)				
DDT NATIONAL OBJECTIVE	This indicator links to the Division of Diabetes Translation (DDT) National Objective to succeed in establishing linkages for promotion of wellness, physical activity, weight and blood pressure control and smoking cessation for persons with diabetes.				
HP 2010 OBJECTIVE	Objective 12-9: Reduce the proportion of adults with high blood pressure.				
	<table> <tr> <td>BASELINE</td><td>Forty-one percent of persons 20 years or older with diabetes had high blood pressure (NHANES, age-adjusted, 1998-94).</td></tr> <tr> <td>TARGET</td><td>Sixteen percent of persons 20 years or older with diabetes have high blood pressure.</td></tr> </table>	BASELINE	Forty-one percent of persons 20 years or older with diabetes had high blood pressure (NHANES, age-adjusted, 1998-94).	TARGET	Sixteen percent of persons 20 years or older with diabetes have high blood pressure.
BASELINE	Forty-one percent of persons 20 years or older with diabetes had high blood pressure (NHANES, age-adjusted, 1998-94).				
TARGET	Sixteen percent of persons 20 years or older with diabetes have high blood pressure.				
	Objective 12-10: Increase the proportion of adults with high blood pressure whose blood pressure is under control.				
	<table> <tr> <td>BASELINE</td><td>Fifty-one percent of persons age 18 or older with diabetes and high blood pressure had blood pressure under control (NHANES, age-adjusted, 1998-94).</td></tr> <tr> <td>TARGET</td><td>Fifty percent of persons 18 or older with diabetes and high blood pressure who have blood pressure under control.</td></tr> </table>	BASELINE	Fifty-one percent of persons age 18 or older with diabetes and high blood pressure had blood pressure under control (NHANES, age-adjusted, 1998-94).	TARGET	Fifty percent of persons 18 or older with diabetes and high blood pressure who have blood pressure under control.
BASELINE	Fifty-one percent of persons age 18 or older with diabetes and high blood pressure had blood pressure under control (NHANES, age-adjusted, 1998-94).				
TARGET	Fifty percent of persons 18 or older with diabetes and high blood pressure who have blood pressure under control.				
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association American Heart Association National Quality Forum, National Voluntary Consensus Standards for Adult Diabetes Care. Available from: The National Quality Forum, A601 Thirteenth Street, NW, Suite 500 North, Washington, DC 20005; Tel: 202.783.1300. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) 				
DATA SUMMARY	<ul style="list-style-type: none"> Geiss LS, Rolka DP, Engelgau MM. (2002). Elevated blood pressure among U.S. adults with diabetes, 1988-1994. 				

American Journal of Preventive Medicine, 22(1): 42-8.

- J.B. Saaddine, M.M. Engelgau, G.L. Beckles, E.W. Gregg, T.J. Thompson, and K.M.V. Narayan. (2001). A Diabetes Report Card for the United States: Quality of Care in the 1990s. Annals of Internal Medicine, 136(8): 565-574.

RELATED LINKS

- Healthy People 2010
(<http://wonder.cdc.gov/data2010/focus.htm>)
- Hypertension Online (Baylor College of Medicine)
(<http://www.hypertensiononline.org/>)
- National High Blood Pressure Education Program (NHBPEP) of the National Heart, Lung, and Blood Institute (NHLBI) of NIH
(www.nhlbi.nih.gov/about/nhbpep/index.htm)

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INDICATOR **Cardiovascular Death in Persons with Diabetes**
CATEGORY **Diabetes-related Mortality**

GENERAL DEFINITION	The number of persons with diabetes who die from cardiovascular causes during a specified time period.
RATIONALE	Cardiovascular disease is the leading cause of diabetes-related deaths. This outcome measure is valuable to track the burden of heart disease upon the population of persons with diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	Objective 5-7: To reduce deaths from cardiovascular disease in persons with diabetes.
	<p>BASELINE 332 deaths from cardiovascular disease per 100,000 persons with diabetes (NVSS, age-adjusted, 1999)</p> <p>TARGET 309 deaths from cardiovascular per 100,000 persons with diabetes.</p>
STANDARDS OF CARE	• N/A
DATA SUMMARY	<ul style="list-style-type: none"> • Diabetes Surveillance Report, 1999 • Muhlestein et. al. (2003). Effect of fasting glucose levels on mortality rate in patients with and without diabetes mellitus and coronary artery disease undergoing percutaneous coronary intervention. Am Heart J, 146:351-358.
RELATED LINKS	<ul style="list-style-type: none"> • American Heart Association (http://www.americanheart.org) • Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) • National Vital Statistics System (http://www.cdc.gov/nchs/nvss.htm)
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INDICATOR Cholesterol Tested
CATEGORY Secondary Prevention for Persons with Diabetes

GENERAL DEFINITION	The percentage of adults with diabetes who have had a lipid profile completed or report having their cholesterol measured during a specified time period. A lipid profile measures LDL, HDL, and triglycerides.				
RATIONALE	Persons with diabetes are at increased risk of complications from cardiovascular disease, such as stroke, angina, and congestive heart failure. Early detection of elevated lipid levels and appropriate treatment can decrease risk for cardiovascular complications. This process measure may provide information about the quality of diabetes care provided and/or diabetes self-management behavior.				
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC Indian Health Service National Diabetes Quality Improvement Alliance (formerly DQIP) NCQA				
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.				
HP 2010 OBJECTIVE	Objective 12-15: To increase the proportion of adults who have had their blood cholesterol checked within the preceding 5 years. <table border="0" data-bbox="704 1066 1386 1291"> <tr> <td>BASELINE</td><td>Sixty-seven percent of adults aged 18 years and older who report that they had their blood cholesterol tested within the preceding 5 years (NHIS, age-adjusted, 1998).</td></tr> <tr> <td>TARGET</td><td>Eighty percent of adults aged 18 years and older having their blood cholesterol tested within the preceding 5 years.</td></tr> </table>	BASELINE	Sixty-seven percent of adults aged 18 years and older who report that they had their blood cholesterol tested within the preceding 5 years (NHIS, age-adjusted, 1998).	TARGET	Eighty percent of adults aged 18 years and older having their blood cholesterol tested within the preceding 5 years.
BASELINE	Sixty-seven percent of adults aged 18 years and older who report that they had their blood cholesterol tested within the preceding 5 years (NHIS, age-adjusted, 1998).				
TARGET	Eighty percent of adults aged 18 years and older having their blood cholesterol tested within the preceding 5 years.				
STANDARDS OF CARE	<ul style="list-style-type: none"> • Agency for Healthcare Research and Quality • American Diabetes Association • American Heart Association • Guide to Community Preventive Services • National Quality Forum, National Voluntary Consensus Standards for Adult Diabetes Care. Available from: The National Quality Forum, A601 Thirteenth Street, NW, Suite 500 North, Washington, DC 20005; Tel: 202.783.1300. • Third Report of the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) Executive Summary 				
DATA SUMMARY	<ul style="list-style-type: none"> • Harwell TS, Moore K, Madison M, Powell-Taylor D, Lundgren P, Smilie JG, Acton KJ, Helgersen SD, Gohdes D. (2001). Comparing self-reported measures of diabetes care with similar measures from a chart audit in a well-defined population. American Journal of Medical Quality, 16(1): 3-8. • J.B. Saaddine, M.M. Engelgau, G.L. Beckles, E.W. Gregg, T.J. Thompson, and K.M.V. Narayan. (2001). A Diabetes Report Card for the United States: Quality of Care in the 1990s. Annals of Internal Medicine, 136(8): 565-574. • State-Specific Cholesterol Screening Trends --- United States, 1991--1999 				

RELATED LINKS

- Guide to Community Preventive Services
(<http://www.cdc.gov/diabetes/projects/community.htm>)
- Healthy People 2010
(<http://wonder.cdc.gov/data2010/focus.htm>)
- Lipids Online (Baylor College of Medicine)
(<http://www.lipidsonline.org/>)

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INDICATOR **Dental Exam**
CATEGORY **Secondary Prevention for Persons with Diabetes**

GENERAL DEFINITION	The percentage of persons with diabetes who have had a dental exam during a specified time period.
RATIONALE	Persons with poorly controlled diabetes are at an increased risk of periodontal disease. Annual dental exams help to ensure that periodontal disease is prevented, or at a minimum, identified early and treated before permanent damage, such as tooth loss, occurs. Periodontal disease is associated with heart disease and stroke.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	Health Disparities Collaboratives Indian Health Service
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	Objective 5-15: To increase the proportion of persons with diabetes who have at least an annual dental exam.
	<p>BASELINE Fifty-six percent of persons age 2 years and older with diabetes saw a dentist at least once within the past year (NHIS, age-adjusted, 1997).</p> <p>TARGET Seventy-five percent of persons age 2 years and older with diabetes see a dentist at least once within the past year.</p>
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Dental Association • American Diabetes Association
DATA SUMMARY	<ul style="list-style-type: none"> • Katz, PP, Wirthlin, MR, Szpunar, SM, Selby, JV, Sepe, SJ and Showstack, JA. (1992). Epidemiology and prevention of periodontal disease in people with diabetes. Diabetes Care 15 (5): 375-385.
RELATED LINKS	<ul style="list-style-type: none"> • Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm)
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INDICATOR **Diabetes Care Related Office Visit to Your Health Professional**

CATEGORY **Secondary Prevention for Persons with Diabetes**

GENERAL DEFINITION	The percentage of persons with diabetes who have had a diabetes-related visit to a health care professional during a specified time period.
RATIONALE	Persons with diabetes are at increased risk for a large number of health problems. Routine visits to a health professional provide an opportunity to evaluate the need for medications, medical procedures, and alterations in patient behavior necessary to maintain the health of diabetic persons. These visits are important so that complications of diabetes can be detected and treated before they become serious and possibly irreversible. This process measure provides information about the quality of diabetes care.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective.
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association • National Quality Forum, National Voluntary Consensus Standards for Adult Diabetes Care. Available from: The National Quality Forum, A601 Thirteenth Street, NW, Suite 500 North, Washington, DC 20005; Tel: 202.783.1300.
DATA SUMMARY	<ul style="list-style-type: none"> • Diabetes Surveillance System
RELATED LINKS	
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INDICATOR CATEGORY	Diabetes Education Diabetes Patient Education				
GENERAL DEFINITION	The percentage of persons with diabetes who have ever taken a course or class in how to manage their diabetes.				
RATIONALE	Self-management is critical to the effective management of diabetes and prevention of complications. This process measure provides information about the number of persons with diabetes who have taken a course in diabetes self-management in a jurisdiction.				
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC Indian Health Service				
DDT NATIONAL OBJECTIVE	This indicator is indirectly related to the Division of Diabetes Translation (DDT) National Objectives to increase the percentage of persons with diabetes who receive recommended foot exams, eye exams, influenza and pneumococcal vaccines, A1c tests, and promotion of wellness, physical activity, weight and blood pressure control, and smoking cessation.				
HP 2010 OBJECTIVE	Objective 5-1: To increase the proportion of people with diabetes who receive formal diabetes education.				
	<table> <tr> <td data-bbox="706 1010 829 1035">BASELINE</td><td data-bbox="886 1010 1365 1094">Forty-five percent of persons with diabetes received formal diabetes education (NHIS, age-adjusted, 1998).</td></tr> <tr> <td data-bbox="706 1125 802 1150">TARGET</td><td data-bbox="886 1125 1313 1178">Sixty percent of persons with diabetes receiving formal diabetes education.</td></tr> </table>	BASELINE	Forty-five percent of persons with diabetes received formal diabetes education (NHIS, age-adjusted, 1998).	TARGET	Sixty percent of persons with diabetes receiving formal diabetes education.
BASELINE	Forty-five percent of persons with diabetes received formal diabetes education (NHIS, age-adjusted, 1998).				
TARGET	Sixty percent of persons with diabetes receiving formal diabetes education.				
STANDARDS OF CARE	• American Diabetes Association				
DATA SUMMARY					
RELATED LINKS	<ul style="list-style-type: none"> • American Association of Diabetes Educators (http://www.aadenet.org) • Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) 				
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INDICATOR CATEGORY	Diabetes-related Hospitalizations Diabetes-related Complications
GENERAL DEFINITION	The number and rate of hospitalizations for diabetes and diabetes-related causes.
RATIONALE	People with diabetes are at greater risk of hospitalization due to complications such as diabetic ketoacidosis, lower extremity amputation, end-stage renal disease, and cardiovascular disease. This outcome measure assesses the incidence and/or prevalence of diabetes related hospitalizations.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC CSTE Chronic Disease Indicators
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective.
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association
DATA SUMMARY	<ul style="list-style-type: none"> 2000 National Hospital Discharge Survey Diabetes Surveillance System Jiang, HJ, Stryer D, Friedman B, & Andrews R. (2003). Multiple hospitalizations for patients with diabetes. Diabetes Care, 26 (5), 1421-6.
RELATED LINKS	<ul style="list-style-type: none"> Council of State and Territorial Epidemiologists - Chronic Disease Indicators (CDI) (http://www.cste.org/position%20statements/02-CD.MCH.OH-02.pdf) Diabetes Surveillance System (http://www.cdc.gov/diabetes/statistics/index.htm)
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INDICATOR CATEGORY	Diabetes-related Mortality Diabetes-related Mortality				
GENERAL DEFINITION	Number of deaths during a specified time period with diabetes as an underlying or contributing cause of death.				
RATIONALE	In 1999, diabetes was listed as the underlying or contributory cause of death for almost 210,000 deaths. Diabetes may be under-reported on as many as 40 percent of all death certificates. Therefore, it is important to consider all listed causes when studying diabetes deaths. This outcome measure is valuable to track the burden of diabetes upon the population.				
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC CSTE Chronic Disease Indicators				
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.				
HP 2010 OBJECTIVE	Objective 5-5: To reduce the diabetes death rate.				
	<table> <tr> <td>BASELINE</td><td>Objective 5-5: 77 deaths per 100,000 population (NVSS, age-adjusted, 1999)</td></tr> <tr> <td>TARGET</td><td>Objective 5-5: 45 deaths per 100,000 population</td></tr> </table>	BASELINE	Objective 5-5: 77 deaths per 100,000 population (NVSS, age-adjusted, 1999)	TARGET	Objective 5-5: 45 deaths per 100,000 population
BASELINE	Objective 5-5: 77 deaths per 100,000 population (NVSS, age-adjusted, 1999)				
TARGET	Objective 5-5: 45 deaths per 100,000 population				
	Objective 5-6: To reduce diabetes-related deaths among persons with diabetes.				
	<table> <tr> <td>BASELINE</td><td>Objective 5-6: 8.8 deaths per 1,000 persons with diabetes listed anywhere on the death certificate (NVSS, age-adjusted, 1999).</td></tr> <tr> <td>TARGET</td><td>Objective 5-6: 7.8 deaths per 1,000 persons with diabetes listed anywhere on the death certificate.</td></tr> </table>	BASELINE	Objective 5-6: 8.8 deaths per 1,000 persons with diabetes listed anywhere on the death certificate (NVSS, age-adjusted, 1999).	TARGET	Objective 5-6: 7.8 deaths per 1,000 persons with diabetes listed anywhere on the death certificate.
BASELINE	Objective 5-6: 8.8 deaths per 1,000 persons with diabetes listed anywhere on the death certificate (NVSS, age-adjusted, 1999).				
TARGET	Objective 5-6: 7.8 deaths per 1,000 persons with diabetes listed anywhere on the death certificate.				
STANDARDS OF CARE	• N/A				
DATA SUMMARY	<ul style="list-style-type: none"> • Diabetes Surveillance System • Mortality Data from the National Vital Statistics System Progress in Chronic Disease Prevention Chronic Disease Reports: Deaths from Diabetes -- United States, 1986 				
RELATED LINKS	<ul style="list-style-type: none"> • Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) • National Vital Statistics System (http://www.cdc.gov/nchs/nvss.htm) 				
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INDICATOR Dilated Eye Exam
CATEGORY Secondary Prevention for Persons with Diabetes

GENERAL DEFINITION The percentage of persons with diabetes who have had a dilated eye exam during a specified time period.

RATIONALE Diabetes is the leading cause of blindness among working age adults. Early detection through eye exams and appropriate treatment can substantially reduce blindness among people with diabetes.

ORGANIZATION(S) RECOMMENDING THE INDICATOR CDC
 CSTE Chronic Disease Indicators
 Health Disparities Collaboratives
 Indian Health Service
 National Diabetes Quality Improvement Alliance (formerly DQIP)
 NCQA

DDT NATIONAL OBJECTIVE This indicator links to the Division of Diabetes Translation (DDT) National Objective to increase the percentage of persons with diagnosed diabetes who receive the recommended eye exams.

HP 2010 OBJECTIVE Objective 5-13: To increase the proportion of adults with diabetes who have at least an annual dilated eye examination.

BASELINE Forty-nine percent of adults with diabetes who had at least an annual dilated eye exam (NHIS, age-adjusted, 1998).

TARGET Seventy-five percent of adults aged 18 years and older with diabetes having a dilated eye exam at least once a year.

STANDARDS OF CARE

- American Diabetes Association
- National Quality Forum, National Voluntary Consensus Standards for Adult Diabetes Care. Available from: The National Quality Forum, A601 Thirteenth Street, NW, Suite 500 North, Washington, DC 20005; Tel: 202.783.1300.
- Perspectives in Disease Prevention and Health Promotion Guidelines for Diabetic Eye Disease Control -- Kentucky

DATA SUMMARY

- Diabetes Surveillance System
- Harwell TS, Moore K, Madison M, Powell-Taylor D, Lundgren P, Smilie JG, Acton KJ, Helgersen SD, Gohdes D. (2001). Comparing self-reported measures of diabetes care with similar measures from a chart audit in a well-defined population. American Journal of Medical Quality, 16(1): 3-8.
- J.B. Saaddine, M.M. Engelgau, G.L. Beckles, E.W. Gregg, T.J. Thompson, and K.M.V. Narayan. (2001). A Diabetes Report Card for the United States: Quality of Care in the 1990s. Annals of Internal Medicine, 136(8): 565-574.
- Levels of Diabetes-Related Preventive-Care Practices --- United States, 1997--1999
- Medicare Health Plan Compare
- Quality of Medical Care Delivered to Medicare Beneficiaries

RELATED LINKS

- American Academy of Ophthalmology (<http://www.aao.org>)
- American Optometric Association

- (<http://www.aoanet.org>)
- Guide to Community Preventive Services
(<http://www.cdc.gov/diabetes/projects/community.htm>)
- Healthy People 2010
(<http://wonder.cdc.gov/data2010/focus.htm>)
- Healthy Vision 2010
(<http://www.healthyvision2010.org/exams/dee.htm>)
- National Eye Institute
(<http://www.nei.nih.gov>)

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INDICATOR **Flu Vaccination**
CATEGORY **Secondary Prevention for Persons with Diabetes**

GENERAL DEFINITION	The percentage of persons with diabetes who have had an influenza vaccination during a specified time period.
RATIONALE	Persons with diabetes are at increased risk of hospitalization, morbidity, and mortality associated with influenza. Influenza vaccination has the potential to improve morbidity and mortality outcomes among persons with diabetes. This process indicator provides information about the quality of diabetes care provided.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC CSTE Chronic Disease Indicators Health Disparities Collaboratives Indian Health Service
DDT NATIONAL OBJECTIVE	This indicator links to the Division of Diabetes Translation (DDT) National Objective to increase the percentage of persons with diagnosed diabetes who receive the recommended influenza vaccine.
HP 2010 OBJECTIVE	Objective 14-29: To increase the proportion of non-institutionalized adults who are vaccinated annually against influenza.
	<p>BASELINE Sixty-six percent of non-institutionalized adults aged 65 years and older with diabetes. Thirty-six percent of non-institutionalized adults aged 18-64 years with diabetes, (NHIS, 1998)</p> <p>TARGET Ninety percent of non-institutionalized adults aged 65 years and older. Sixty-percent of non-institutionalized high-risk adults aged 18-64 years old.</p>
STANDARDS OF CARE	<ul style="list-style-type: none"> • American College of Physicians • American Diabetes Association • National Coalition for Adult Immunization • National Network for Immunization Information (NNII) • National Quality Forum, National Voluntary Consensus Standards for Adult Diabetes Care. Available from: The National Quality Forum, A601 Thirteenth Street, NW, Suite 500 North, Washington, DC 20005; Tel: 202.783.1300.
DATA SUMMARY	<ul style="list-style-type: none"> • Diabetes Surveillance System - Chapter 10 • Harwell TS, Moore K, Madison M, Powell-Taylor D, Lundgren P, Smilie JG, Acton KJ, Helgersen SD, Gohdes D. (2001). Comparing self-reported measures of diabetes care with similar measures from a chart audit in a well-defined population. American Journal of Medical Quality, 16(1): 3-8.
RELATED LINKS	<ul style="list-style-type: none"> • CDC Diabetes and Flu/Pneumococcal Campaign (http://www.cdc.gov/diabetes/projects/cdc-flu.htm) • CDC National Center for Chronic Disease Prevention and Health Promotion - Links related to influenza and pneumococcal vaccines (http://www.cdc.gov/diabetes/projects/links.htm)

- Healthy People 2010
(<http://wonder.cdc.gov/data2010/focus.htm>)

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INDICATOR **Foot Exam**
CATEGORY **Secondary Prevention for Persons with Diabetes**

GENERAL DEFINITION The percentage of persons with diabetes who have had a foot exam performed by a health care professional during a specified time period.

RATIONALE Persons with diabetes are at increased risk of hospitalization, morbidity, disability, and mortality associated with lower extremity amputations. Early detection and treatment of foot ulcers can reduce the risk of lower extremity amputation. This process indicator provides information about the quality of diabetes care provided.

ORGANIZATION(S) RECOMMENDING THE INDICATOR CDC
 CSTE Chronic Disease Indicators
 Health Disparities Collaboratives
 Indian Health Service
 National Diabetes Quality Improvement Alliance (formerly DQIP)

DDT NATIONAL OBJECTIVE This indicator links to the Division of Diabetes Translation (DDT) National Objective to increase the percentage of persons with diagnosed diabetes who receive the recommended foot exam.

HP 2010 OBJECTIVE Objective 5-14: To increase the proportion of adults with diabetes who have at least an annual foot exam.

BASELINE Sixty-eight percent of adults with diabetes who had at least an annual foot exam (BRFSS, age-adjusted, 1998).

TARGET Seventy-five percent of adults aged 18 years and older with diabetes having a foot exam at least once a year.

STANDARDS OF CARE • American Diabetes Association
 • National Quality Forum, National Voluntary Consensus Standards for Adult Diabetes Care. Available from: The National Quality Forum, A601 Thirteenth Street, NW, Suite 500 North, Washington, DC 20005; Tel: 202.783.1300.

DATA SUMMARY • Diabetes Surveillance System
 • Harwell TS, Moore K, Madison M, Powell-Taylor D, Lundgren P, Smilie JG, Acton KJ, Helgersen SD, Gohdes D. (2001). Comparing self-reported measures of diabetes care with similar measures from a chart audit in a well-defined population. American Journal of Medical Quality, 16(1): 3-8.
 • J.B. Saaddine, M.M. Engelgau, G.L. Beckles, E.W. Gregg, T.J. Thompson, and K.M.V. Narayan. (2001). A Diabetes Report Card for the United States: Quality of Care in the 1990s. Annals of Internal Medicine, 136(8): 565-574.
 • Levels of Diabetes-Related Preventive-Care Practices --- United States, 1997--1999

RELATED LINKS • Guide to Community Preventive Services
 (<http://www.cdc.gov/diabetes/projects/community.htm>)
 • Healthy People 2010
 (<http://wonder.cdc.gov/data2010/focus.htm>)
 • Lower Extremity Amputation Prevention Program, Bureau of

Primary Health Care, Division of Programs for Special
Populations

(<http://bphc.hrsa.gov/leap/>)

- The American Podiatric Medical Association
(<http://www.apma.org/diabetes01pub.htm>)

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INDICATOR **Hospitalization for Cardiovascular Disease
among Persons with Diabetes**

CATEGORY **Diabetes-related Complications**

GENERAL DEFINITION	The number of hospital discharges associated with cardiovascular disease among persons with diabetes.
RATIONALE	Cardiovascular disease is the leading cause of diabetes-related deaths. This outcome measure is valuable to track the burden of heart disease upon the population of persons with diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective.
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association • American Heart Association
DATA SUMMARY	<ul style="list-style-type: none"> • Diabetes Surveillance System • Major Cardiovascular Disease (CVD) During 1997--1999 and Major CVD Hospital Discharge Rates in 1997 Among Women with Diabetes --- United States
RELATED LINKS	<ul style="list-style-type: none"> • American College of Cardiology (http://www.acc.org/) • National Heart, Lung, and Blood Institute (http://www.nhlbi.nih.gov/index.htm) • The Link between Cardiovascular Disease and Diabetes (http://ndep.nih.gov/control/CVD.htm)
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INDICATOR **Hospitalization for Lower Extremity Amputations**
CATEGORY **Diabetes-related Complications**

GENERAL DEFINITION	The number of non-traumatic lower extremity amputation (LEA) hospital discharges among persons with diabetes.
RATIONALE	Diabetes is the leading cause of non-traumatic lower extremity amputations. This outcome measure provides information about one consequence of long-term uncontrolled diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	AHRQ CDC CSTE Chronic Disease Indicators
DDT NATIONAL OBJECTIVE	This indicator is indirectly related to the Division of Diabetes Translation (DDT) National Objective to increase the percentage of persons who receive recommended foot exams.
HP 2010 OBJECTIVE	Objective 5-10: To reduce the rate of lower extremity amputations in persons with diabetes.
	<p>BASELINE 6.6 lower extremity amputations per 1,000 persons with diabetes per year (NHDS, NHIS, age-adjusted, 1997-1999).</p> <p>TARGET 1.8 lower extremity amputations per 1,000 persons with diabetes per year (age-adjusted).</p>
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association • American Podiatric Medical Association
DATA SUMMARY	<ul style="list-style-type: none"> • Diabetes Surveillance System • Krapfl H & Gohdes D. (2003). Lower extremity amputation episodes among persons with diabetes - New Mexico, 2000. MMWR, 52(4), 66-68.
RELATED LINKS	<ul style="list-style-type: none"> • Global Lower Extremity Amputation Study (http://www.ncl.ac.uk/hopit/hopit_gleas.htm) • Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) • MMWR Article "Hospital Discharge Rates for Non-traumatic Lower Extremity Amputation by Diabetes Status -- United States, 1997" (http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5043a3.htm) • MMWR Article "Lower Extremity Amputations Among Persons with Diabetes Mellitus -- Washington, 1988" (http://www.cdc.gov/mmwr/preview/mmwrhtml/00015500.htm) • The Lower Extremity Amputation Prevention (LEAP) Program (http://bphc.hrsa.gov/programs/LEAPprograminfo.htm#HISTORY)
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INDICATOR **Incidence of End-Stage Renal Disease
Attributed to Diabetes**

CATEGORY **Diabetes-related Complications**

GENERAL DEFINITION	The annual rate of new end-stage renal disease cases attributable to diabetes during the year.
RATIONALE	Diabetes is the leading cause of new end state renal disease (ESRD) cases in the U.S. ESRD results in increased hospitalizations, disability, and morbidity for people with diabetes. Financial costs of ESRD are also high. This outcome measure provides information about one consequence of long-term uncontrolled diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC CSTE Chronic Disease Indicators
DDT NATIONAL OBJECTIVE	Disparities in ESRD incidence are great. As a result, this indicator relates to the DDT National objective of reducing health disparities in high-risk populations.
HP 2010 OBJECTIVE	Objective 4-7: Reduce kidney failure due to diabetes
	<p>BASELINE 129 reported persons with ESRD attributable to diabetes per million population (USRDS, age-adjusted, 1997).</p> <p>TARGET 78 reported persons with ESRD attributable to diabetes per million population.</p>
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association
DATA SUMMARY	<ul style="list-style-type: none"> "Forecast of the Number of Patients with End-Stage Renal Disease in the United States to the Year 2010" Data summaries available from USRDS Diabetes Surveillance System Forum of End Stage Renal Disease Networks National Kidney Foundation USRDS Renal Data Extraction and Reference (RenDER)
RELATED LINKS	<ul style="list-style-type: none"> CDC National Center for Chronic Disease Prevention and Health Promotion (http://www.cdc.gov/diabetes/) Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health (http://www.niddk.nih.gov) National Kidney Foundation (http://www.kidney.org) National Renal Administrators Association (http://www.nraa.org) University of Michigan Kidney and Epidemiology Cost Center (http://www.med.umich.edu/kidney/) USRDS Coordinating Center Contacts (http://www.usrds.org/contacts.htm)

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INDICATOR CATEGORY	Incidence of Gestational Diabetes Prevalence & Incidence of Diabetes
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GENERAL DEFINITION	The percentage of women diagnosed with diabetes during pregnancy.				
RATIONALE	Approximately 7% of all pregnancies are complicated by GDM, resulting in more than 200,000 cases annually. Gestational diabetes may be associated with intrauterine fetal death, increased frequency of maternal hypertensive disorders and the need for cesarean delivery. Women with GDM are at increased risk for the development of type 2 diabetes following pregnancy. Their offspring are at an increased risk for obesity as well as impaired glucose tolerance and type 2 diabetes. This surveillance indicator is used for program planning, policy development, and provides the denominator for other diabetes indicators.				
ORGANIZATION(S) RECOMMENDING THE INDICATOR	American College of Obstetricians and Gynecologists CDC				
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.				
HP 2010 OBJECTIVE	Objective 5-8: To decrease the proportion of pregnant women with gestational diabetes. (Developmental)				
	<table border="0"> <tr> <td>BASELINE</td><td>To be determined</td></tr> <tr> <td>TARGET</td><td>To be determined</td></tr> </table>	BASELINE	To be determined	TARGET	To be determined
BASELINE	To be determined				
TARGET	To be determined				
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association 				
DATA SUMMARY	<ul style="list-style-type: none"> Births: Final data for 2000 Prenatal Care and Pregnancies Complicated by Diabetes -- U.S. Reporting Areas, 1989 				
RELATED LINKS	<ul style="list-style-type: none"> American College of Obstetricians and Gynecologists (http://www.acog.org/) CDC's Initiative on Diabetes and Women's Health (http://www.cdc.gov/diabetes/projects/women.htm) Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) 				
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INDICATOR **LDL-C Level**
CATEGORY **Secondary Prevention for Persons with Diabetes**

GENERAL DEFINITION	The percentage of persons with diabetes who have an LDL-C level indicating a certain level of control as defined by user.
RATIONALE	Persons with diabetes are at increased risk of complications from cardiovascular disease, such as stroke, angina, and congestive heart failure. Early detection of elevated lipid levels and appropriate treatment can decrease risk for cardiovascular complications. This process measure may provide information about the quality of diabetes care provided and/or diabetes self-management behavior.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	Health Disparities Collaboratives Indian Health Service National Diabetes Quality Improvement Alliance (formerly DQIP) NCQA
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	Objective 12-16: To increase the proportion of persons with coronary heart disease who have their LDL-cholesterol level treated to a goal of less than or equal to 100mg/dL. (Developmental)
	BASELINE To be determined
	TARGET To be determined
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association • American Heart Association • Guide to Community Preventive Services • National Quality Forum, National Voluntary Consensus Standards for Adult Diabetes Care. Available from: The National Quality Forum, A601 Thirteenth Street, NW, Suite 500 North, Washington, DC 20005; Tel: 202.783.1300. • Third Report of the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) Executive Summary
DATA SUMMARY	<ul style="list-style-type: none"> • J.B. Saaddine, M.M. Engelgau, G.L. Beckles, E.W. Gregg, T.J. Thompson, and K.M.V. Narayan. (2001). A Diabetes Report Card for the United States: Quality of Care in the 1990s. <i>Annals of Internal Medicine</i>, 136(8): 565-574. • Progress in Chronic Disease Prevention Factors Related to Cholesterol Screening and Cholesterol Level Awareness -- United States, 1989
RELATED LINKS	<ul style="list-style-type: none"> • American Heart Association (http://www.s2mw.com/heartofdiabetes/diabetes.html) • Guide to Community Preventive Services (http://www.cdc.gov/diabetes/projects/community.htm) • Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) • Lipids Online (Baylor College of Medicine) (http://www.lipidsonline.org/)
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INDICATOR **Monitoring for Diabetic Nephropathy**
CATEGORY **Secondary Prevention for Persons with Diabetes**

GENERAL DEFINITION	The percentage of persons with diabetes who are monitored appropriately for nephropathy (a type of kidney disease).
RATIONALE	Diabetic nephropathy occurs in 20-40% of patients with diabetes and is the single leading cause of End-Stage Renal Disease (ESRD). Early detection of diabetic nephropathy may delay or prevent onset of ESRD. This process measure may provide information about the quality of diabetes care provided and/or diabetes self-management.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	National Diabetes Quality Improvement Alliance (formerly DQIP) NCQA
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective.
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association • National Kidney Foundation • National Quality Forum, National Voluntary Consensus Standards for Adult Diabetes Care. Available from: The National Quality Forum, A601 Thirteenth Street, NW, Suite 500 North, Washington, DC 20005; Tel: 202.783.1300. • Use of Glycated Hemoglobin and Microalbuminuria in the Monitoring of Diabetes Mellitus. Summary, Evidence Report/Technology Assessment: Number 84. AHRQ Publication No. 03-E048, July 2003. Agency for Healthcare Research and Quality, Rockville, MD.
DATA SUMMARY	<ul style="list-style-type: none"> • J.B. Saaddine, M.M. Engelgau, G.L. Beckles, E.W. Gregg, T.J. Thompson, and K.M.V. Narayan. (2001). A Diabetes Report Card for the United States: Quality of Care in the 1990s. Annals of Internal Medicine, 136(8): 565-574. • National Kidney Foundation
RELATED LINKS	<ul style="list-style-type: none"> • National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health (http://www.niddk.nih.gov) • National Kidney Foundation (http://www.kidney.org)
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INDICATOR **Obesity - Primary Prevention in Adults**
CATEGORY **Lifestyle**

GENERAL DEFINITION	The percentage of adults who do not have diabetes who have a body mass index (BMI) equal to or greater than 30.0 kg/m ² .								
RATIONALE	Adults who are obese are at higher risk for acquiring diabetes. This lifestyle indicator provides information about the need for programs to promote reaching and maintaining a healthy weight among persons without diabetes.								
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC								
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the current 7 national objectives. Future objectives may include recommendations for the promotion of wellness, including weight control, among persons at-risk for diabetes (primary prevention).								
HP 2010 OBJECTIVE	<p>Objective 19-1: To increase the proportion of adults who are at a healthy weight.</p> <table> <tr> <td>BASELINE</td><td>Objective 19-1: Forty-two percent of adults aged 20 years and older were at a healthy weight defined as a body mass index (BMI) equal to or greater than 18.5 and less than 25.0 kg/m² (NHANES, age-adjusted, 1988-94).</td></tr> <tr> <td>TARGET</td><td>Objective 19-1: Sixty percent of adults aged 20 years and older at a healthy weight.</td></tr> </table> <hr/> <p>Objective 19-2: To reduce the proportion of adults who are obese.</p> <table> <tr> <td>BASELINE</td><td>Objective 19-2: Twenty-three percent of adults aged 20 years and older were identified as obese defined as a BMI of 30.0 kg/m² or more (NHANES, age-adjusted, 1988-94).</td></tr> <tr> <td>TARGET</td><td>Objective 19-2: Fifteen percent of adults aged 20 years or older who are obese.</td></tr> </table>	BASELINE	Objective 19-1: Forty-two percent of adults aged 20 years and older were at a healthy weight defined as a body mass index (BMI) equal to or greater than 18.5 and less than 25.0 kg/m ² (NHANES, age-adjusted, 1988-94).	TARGET	Objective 19-1: Sixty percent of adults aged 20 years and older at a healthy weight.	BASELINE	Objective 19-2: Twenty-three percent of adults aged 20 years and older were identified as obese defined as a BMI of 30.0 kg/m ² or more (NHANES, age-adjusted, 1988-94).	TARGET	Objective 19-2: Fifteen percent of adults aged 20 years or older who are obese.
BASELINE	Objective 19-1: Forty-two percent of adults aged 20 years and older were at a healthy weight defined as a body mass index (BMI) equal to or greater than 18.5 and less than 25.0 kg/m ² (NHANES, age-adjusted, 1988-94).								
TARGET	Objective 19-1: Sixty percent of adults aged 20 years and older at a healthy weight.								
BASELINE	Objective 19-2: Twenty-three percent of adults aged 20 years and older were identified as obese defined as a BMI of 30.0 kg/m ² or more (NHANES, age-adjusted, 1988-94).								
TARGET	Objective 19-2: Fifteen percent of adults aged 20 years or older who are obese.								
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association 								
DATA SUMMARY	<ul style="list-style-type: none"> Body Weight Status of Adults: United States, 1997-98 Prevalence of Overweight and Obesity Among Adults: United States, 1999-2000 								
RELATED LINKS	<ul style="list-style-type: none"> American Diabetes Association (http://www.diabetes.org) American Dietetic Association (http://www.eatright.org) American Heart Association (http://www.americanheart.org) Healthy People 2010 								

- (<http://wonder.cdc.gov/data2010/focus.htm>)
- National Heart, Lung, and Blood Institute
(http://www.nhlbi.nih.gov/guidelines/obesity/ob_home.htm)
- National Institute of Diabetes and Digestive and Kidney
Diseases: Physical Activity and Weight Control
(<http://www.niddk.nih.gov/health/nutrit/pubs/physact.htm>)
- The Association for the Study of Obesity
(<http://aso.org.uk/>)
- WHO International
(<http://www.who.int/nut/#obs>)

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INDICATOR **Obesity - Secondary Prevention in Adults with Diabetes**
CATEGORY **Lifestyle**

GENERAL DEFINITION The percentage of adults with diabetes who are obese based upon having a body mass index (BMI) equal or greater than 30.0 kg/m².

RATIONALE Adults who are obese are at higher risk acquiring complications from diabetes. Excess body weight is linked to insulin resistance. Weight control can increase the efficiency of the insulin receptors in the cells. This lifestyle indicator provides information about the need for programs to promote reaching and maintaining a healthy weight among persons with diabetes.

ORGANIZATION(S) RECOMMENDING THE INDICATOR CDC
Indian Health Service

DDT NATIONAL OBJECTIVE This indicator links to the Division of Diabetes Translation (DDT) National Objective to succeed in establishing linkages for promotion of wellness, physical activity, weight and blood pressure control and smoking cessation for persons with diabetes.

HP 2010 OBJECTIVE Objective 19-1: To increase the proportion of adults with diabetes who are at a healthy weight.

BASELINE Objective 19-1: Twenty-six percent of adults aged 20 years and older with diabetes were at a healthy weight defined as a body mass index (BMI) equal to or greater than 18.5 and less than 25.0 kg/m² (NHANES, age-adjusted, 1988-94).

TARGET Objective 19-1: Sixty percent of adults aged 20 years and older with diabetes at a healthy weight.

Objective 19-2: To reduce the proportion of adults with diabetes who are obese.

BASELINE Objective 19-2: Forty-one percent of adults aged 20 years and older with diabetes were identified as obese defined as a BMI of 30.0 kg/m² or more (NHANES, age-adjusted, 1988-94).

TARGET Objective 19-2: Fifteen percent of adults aged 20 years or older who are obese.

STANDARDS OF CARE • American Diabetes Association
• American Heart Association

DATA SUMMARY • Body Weight Status of Adults: United States, 1997-98
• BRFSS Trends Data
• Prevalence of Overweight and Obesity Among Adults: United States, 1999-2000

RELATED LINKS

- American Dietetic Association
(<http://www.eatright.org>)
- CDC Nutrition and Physical Activity Program
(<http://www.cdc.gov/nccdphp/dnpa/>)
- Healthy People 2010
(<http://wonder.cdc.gov/data2010/focus.htm>)
- National Heart, Lung, and Blood Institute
(http://www.nhlbi.nih.gov/guidelines/obesity/ob_home.htm)
- National Institute of Diabetes and Digestive and Kidney Diseases: Physical Activity and Weight Control
(<http://www.niddk.nih.gov/health/nutrit/pubs/physact.htm>)
- NHLBI Obesity Education Initiative
(<http://nhlbi.nih.gov/about/oei/index.htm>)
- Physical Activity and Good Nutrition: Essential Elements to Prevent Chronic Diseases and Obesity
(http://www.cdc.gov/nccdphp/aag/aag_dnpa.htm)
- The Association for the Study of Obesity
(<http://aso.org.uk/>)

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INDICATOR **Overweight or Obese - Secondary
Prevention in Adults with Diabetes**

CATEGORY **Lifestyle**

GENERAL DEFINITION	The percentage of persons with diabetes who are overweight based upon having a body mass index (BMI) equal to or greater than 25.0 kg/m ² .
RATIONALE	Adults who are overweight are at higher risk for acquiring complications from diabetes. Excess body weight is linked to insulin resistance. Weight control can increase the efficiency of the insulin receptors in the cells. This lifestyle indicator provides information about the need for programs to promote reaching and maintaining a healthy weight among persons with diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC Indian Health Service
DDT NATIONAL OBJECTIVE	This indicator links to the Division of Diabetes Translation (DDT) National Objective to succeed in establishing linkages for promotion of wellness, physical activity, weight and blood pressure control and smoking cessation for persons with diabetes.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective specific to persons with diabetes.
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association • American Heart Association
DATA SUMMARY	<ul style="list-style-type: none"> • Body Weight Status of Adults: United States, 1997-98 • BRFSS Trends Data • Harwell TS, Moore K, Madison M, Powell-Taylor D, Lundgren P, Smilie JG, Acton KJ, Helgersen SD, Gohdes D. (2001). Comparing self-reported measures of diabetes care with similar measures from a chart audit in a well-defined population. American Journal of Medical Quality, 16(1): 3-8. • Prevalence of Overweight and Obesity Among Adults: United States, 1999-2000
RELATED LINKS	<ul style="list-style-type: none"> • American Dietetic Association (http://www.eatright.org) • CDC Nutrition and Physical Activity Program (http://www.cdc.gov/nccdphp/dnpa/) • National Heart, Lung, and Blood Institute (http://www.nhlbi.nih.gov/guidelines/obesity/ob_home.htm) • National Institute of Diabetes and Digestive and Kidney Diseases: Physical Activity and Weight Control (http://www.niddk.nih.gov/health/nutrit/pubs/physact.htm) • Physical Activity and Good Nutrition: Essential Elements to Prevent Chronic Diseases and Obesity (http://www.cdc.gov/nccdphp/aag/aag_dnpa.htm) • Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity (http://www.surgeongeneral.gov/topics/obesity)
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INDICATOR **Overweight or Obese- Primary Prevention in Adults**
CATEGORY **Lifestyle**

GENERAL DEFINITION	The percentage of adults without diabetes who are overweight based upon having a body mass index (BMI) equal to or greater than 25.0 kg/m ² .								
RATIONALE	Adults who are overweight are at higher risk for acquiring diabetes. This lifestyle indicator provides information about the need for programs to promote reaching and maintaining a healthy weight among persons without diabetes.								
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC								
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the current 7 national objectives. Future objectives may include recommendations for the promotion of wellness, including weight control, among persons at risk for diabetes (primary prevention).								
HP 2010 OBJECTIVE	<p>Objective 19-1: To increase the proportion of adults who are at a healthy weight.</p> <table> <tr> <td>BASELINE</td><td>Objective 19-1: Forty-two percent of adults aged 20 years and older were at a healthy weight defined as a body mass index (BMI) equal to or greater than 18.5 and less than 25.0 kg/m² (NHANES, age-adjusted, 1988-94).</td></tr> <tr> <td>TARGET</td><td>Objective 19-1: Sixty percent of adults aged 20 years and older at a healthy weight.</td></tr> </table> <hr/> <p>Objective 19-2: To reduce the proportion of adults who are obese.</p> <table> <tr> <td>BASELINE</td><td>Objective 19-2: Twenty-three percent of adults aged 20 years and older were identified as obese defined as a BMI of 30.0 kg/m² or more (NHANES, age-adjusted, 1988-94).</td></tr> <tr> <td>TARGET</td><td>Objective 19-2: Fifteen percent of adults aged 20 years or older who are obese.</td></tr> </table>	BASELINE	Objective 19-1: Forty-two percent of adults aged 20 years and older were at a healthy weight defined as a body mass index (BMI) equal to or greater than 18.5 and less than 25.0 kg/m ² (NHANES, age-adjusted, 1988-94).	TARGET	Objective 19-1: Sixty percent of adults aged 20 years and older at a healthy weight.	BASELINE	Objective 19-2: Twenty-three percent of adults aged 20 years and older were identified as obese defined as a BMI of 30.0 kg/m ² or more (NHANES, age-adjusted, 1988-94).	TARGET	Objective 19-2: Fifteen percent of adults aged 20 years or older who are obese.
BASELINE	Objective 19-1: Forty-two percent of adults aged 20 years and older were at a healthy weight defined as a body mass index (BMI) equal to or greater than 18.5 and less than 25.0 kg/m ² (NHANES, age-adjusted, 1988-94).								
TARGET	Objective 19-1: Sixty percent of adults aged 20 years and older at a healthy weight.								
BASELINE	Objective 19-2: Twenty-three percent of adults aged 20 years and older were identified as obese defined as a BMI of 30.0 kg/m ² or more (NHANES, age-adjusted, 1988-94).								
TARGET	Objective 19-2: Fifteen percent of adults aged 20 years or older who are obese.								
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association 								
DATA SUMMARY	<ul style="list-style-type: none"> Body Weight Status of Adults: United States, 1997-98 BRFSS Trends Data Prevalence of Overweight and Obesity Among Adults: United States, 1999-2000 								
RELATED LINKS	<ul style="list-style-type: none"> American Dietetic Association (http://www.eatright.org) American Heart Association (http://www.americanheart.org/) Healthy People 2010 								

- (<http://wonder.cdc.gov/data2010/focus.htm>)
- National Heart, Lung, and Blood Institute
(http://www.nhlbi.nih.gov/guidelines/obesity/ob_home.htm)
- National Institute of Diabetes and Digestive and Kidney
Diseases: Physical Activity and Weight Control
(<http://www.niddk.nih.gov/health/nutrit/pubs/physact.htm>)
- Physical Activity and Good Nutrition: Essential Elements to
Prevent Chronic Diseases and Obesity
(http://www.cdc.gov/nccdphp/aag/aag_dnpa.htm)

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INDICATOR **Pneumococcal Vaccination**
CATEGORY **Secondary Prevention for Persons with Diabetes**

GENERAL DEFINITION	The percentage of persons with diabetes who have ever had a pneumococcal vaccination.				
RATIONALE	Persons with diabetes are at increased risk of hospitalization, morbidity, and mortality associated with pneumonia. Pneumococcal vaccination has the potential to improve morbidity and mortality outcomes among persons with diabetes. This process indicator provides information about the quality of diabetes care provided.				
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC CSTE Chronic Disease Indicators Health Disparities Collaboratives Indian Health Service				
DDT NATIONAL OBJECTIVE	This indicator links to the Division of Diabetes Translation (DDT) National Objective to increase the percentage of persons with diagnosed diabetes who received the recommended pneumococcal vaccine.				
HP 2010 OBJECTIVE	Objective 14-29: To increase the proportion of non-institutionalized adults who are (vaccinated annually against influenza) and ever vaccinated against pneumococcal disease. <table> <tr> <td>BASELINE</td><td>Sixty-six percent of non-institutionalized adults aged 65 years and older with diabetes ever vaccinated against pneumococcal disease. Thirty-six percent of non-institutionalized high-risk adults aged 18-64 years with diabetes ever vaccinated against pneumococcal disease, (NHIS, 1998)</td></tr> <tr> <td>TARGET</td><td>Ninety percent of non-institutionalized adults aged 65 years and older vaccinated against pneumococcal disease. Sixty percent of non-institutionalized high-risk adults aged 18-64 vaccinated annually against pneumococcal disease.</td></tr> </table>	BASELINE	Sixty-six percent of non-institutionalized adults aged 65 years and older with diabetes ever vaccinated against pneumococcal disease. Thirty-six percent of non-institutionalized high-risk adults aged 18-64 years with diabetes ever vaccinated against pneumococcal disease, (NHIS, 1998)	TARGET	Ninety percent of non-institutionalized adults aged 65 years and older vaccinated against pneumococcal disease. Sixty percent of non-institutionalized high-risk adults aged 18-64 vaccinated annually against pneumococcal disease.
BASELINE	Sixty-six percent of non-institutionalized adults aged 65 years and older with diabetes ever vaccinated against pneumococcal disease. Thirty-six percent of non-institutionalized high-risk adults aged 18-64 years with diabetes ever vaccinated against pneumococcal disease, (NHIS, 1998)				
TARGET	Ninety percent of non-institutionalized adults aged 65 years and older vaccinated against pneumococcal disease. Sixty percent of non-institutionalized high-risk adults aged 18-64 vaccinated annually against pneumococcal disease.				
STANDARDS OF CARE	<ul style="list-style-type: none"> • American College of Physicians • American Diabetes Association • National Network for Immunization Information (NNII) 				
DATA SUMMARY	<ul style="list-style-type: none"> • Diabetes Surveillance System • Harwell TS, Moore K, Madison M, Powell-Taylor D, Lundgren P, Smilie JG, Acton KJ, Helgersen SD, Gohdes D. (2001). Comparing self-reported measures of diabetes care with similar measures from a chart audit in a well-defined population. American Journal of Medical Quality, 16(1): 3-8. 				
RELATED LINKS	<ul style="list-style-type: none"> • American Lung Association (http://www.lungusa.org/diseases/pneumonia_factsheet.html) • CDC Diabetes and Flu/Pneumococcal Campaign (http://www.cdc.gov/diabetes/projects/cdc-flu.htm) • CDC National Center for Chronic Disease Prevention and Health Promotion - Links related to influenza and pneumococcal 				

vaccines

(<http://www.cdc.gov/diabetes/projects/links.htm>)

- Healthy People 2010

(<http://wonder.cdc.gov/data2010/focus.htm>)

- National Foundation for Infectious Diseases

(<http://www.nfid.org/factsheets/pneumofacts.html>)

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INDICATOR **Prevalence of Cardiovascular Complications
among Persons with Diabetes**

CATEGORY **Diabetes-related Complications**

GENERAL DEFINITION	The prevalence of cardiovascular complications among persons with diabetes during a specified time period.
RATIONALE	Cardiovascular disease (CVD) is the leading cause of diabetes-related deaths. This outcome measure is valuable to track the burden of CVD upon the population of persons with diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective specifically for persons with diabetes.
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association • American Heart Association
DATA SUMMARY	<ul style="list-style-type: none"> • Benjamin S, Geiss LS, Pan L, Engelgau MM, & Greenlund KJ. (2003). Self-reported heart disease among adults with and without diabetes – United States, 1999-2001. MMWR, 52(44): 1065-1070. • Diabetes Surveillance System • Major Cardiovascular Disease (CVD) During 1997--1999 and Major CVD Hospital Discharge Rates in 1997 Among Women with Diabetes --- United States
RELATED LINKS	<ul style="list-style-type: none"> • American College of Cardiology (http://www.acc.org/) • National Heart, Lung, and Blood Institute (http://www.nhlbi.nih.gov/index.htm) • The Link between Cardiovascular Disease and Diabetes (http://ndep.nih.gov/control/CVD.htm)
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INDICATOR **Prevalence of Diabetes in Adults**
CATEGORY **Prevalence & Incidence of Diabetes**

GENERAL DEFINITION	The percentage or number of adults who have been diagnosed with diabetes.
RATIONALE	Prevalence of diagnosed diabetes is a key measure for assessing the current and changing burden of diabetes in a population. This surveillance indicator is used for program planning, policy development, and provides the denominator for other diabetes indicators.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC CSTE Chronic Disease Indicators Indian Health Service
DDT NATIONAL OBJECTIVE	This indicator is the denominator for the following Division of Diabetes Translation (DDT) National Objectives: recommended eye exams, foot exams, A1c tests, and influenza and pneumococcal vaccines.
HP 2010 OBJECTIVE	Objective 5-3: To reduce the overall rate of diabetes that is clinically diagnosed.
	<p>BASELINE Forty per 1,000 persons (4.0%) who report ever being diagnosed with diabetes (NHIS, age-adjusted, 1997).</p> <p>TARGET Twenty-five per 1,000 persons (2.5%) who report ever being diagnosed with diabetes.</p>
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association
DATA SUMMARY	<ul style="list-style-type: none"> Cowie CC, Rust, KF, Byrd-Holt D, Eberhardt MS, Saydah S, Geiss LS, Engelgau MM, Ford ES, & Gregg EW. (2003). Prevalence of Diabetes and Impaired Fasting Glucose in Adults – United States, 1999-2000. MMWR 52(35): 833-837. Diabetes Surveillance System Harris MI, Flegal KM, Cowie CC, Eberhardt MS, Goldstein DE, Little RR, Wiedmeyer HM, Byrd-Hold DD. (1998). Prevalence of diabetes, impaired fasting glucose, and impaired glucose tolerance in adults. The Third National Health and Nutrition Examination Survey, 1988-1994. Diabetes Care, 21: 518-524. Narayan, KM, Boyle JP, Thompson TJ, Sorensen, SW, and Williamson, DF. (2003). Lifetime risk for diabetes mellitus in the United States. JAMA, 290(14): 1884-1890. National Center for Health Statistics. Special Feature: Diabetes in Health, United States, 2003. With Chartbook on Trends in the Health of Americans. Hyattsville, Maryland: 2003, pp. 58-63. Simon PA, Zeng Z, Fielding JE, Burrows NR, & Engelgau MM. (2003). Diabetes among Hispanics – Los Angeles County, California, 2002-2003. MMWR, 52(47): 1152-1155.
RELATED LINKS	<ul style="list-style-type: none"> Diabetes Surveillance System (http://www.cdc.gov/diabetes/statistics/index.htm) Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) National Institute of Diabetes and Digestive and Kidney Diseases: General Information and National Estimates on Diabetes in the US, 2000 (http://www.niddk.nih.gov/health/diabetes/pubs/dmstats/dmstats.htm) WHO International: Estimated Prevalence Among Adults, 1997

(<http://www.who.int/whr2001/2001/archives/1998/images/diab97-e.gif>)
•WHO International: Estimated Prevalence Among Adults, 2025
(<http://www.who.int/whr2001/2001/archives/1998/images/diab25-e.gif>)

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INDICATOR CATEGORY	Prevalence of Diabetes in Children Prevalence & Incidence of Diabetes
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GENERAL DEFINITION	The percentage or number of children who have been diagnosed with diabetes.
RATIONALE	Approximately 1 out of every 400-500 children and adolescents have Type 1. Clinic-based reports and regional studies indicate that Type 2 diabetes is becoming more common among American Indian, African American, and Hispanic/Latino children and adolescents. Prevalence of diagnosed diabetes is a key measure for assessing the current and changing burden of diabetes in a population. This surveillance indicator is used for program planning and policy development aimed at easing the burden of diabetes among children.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC Indian Health Service
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective.
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association - Care of Children With Diabetes in the School and Day Care Setting American Diabetes Association - Management of Diabetes at Diabetes Camps
DATA SUMMARY	<ul style="list-style-type: none"> Moore KR, Harwell TS, McDowall JM, Oser CS, Helgersen SD, Gohdes D, & Burrows N. (2003). Diabetes among young American Indians – Montana and Wyoming, 2000-2002. MMWR, 52(46): 1127-1129. National Diabetes Fact Sheet Reference Documents on Type 2 Diabetes in Children
RELATED LINKS	<ul style="list-style-type: none"> American Diabetes Association. Type 2 Diabetes in Children. [Consensus Statement]. Diabetes Care 2000; 23: 381-9. (http://care.diabetesjournals.org/cgi/reprint/23/3/381.pdf) CDC: Diabetes and Children (http://www.cdc.gov/diabetes/projects/cda2.htm) Children with Diabetes Foundation (http://www.cwdfoundation.org/) International Society for Pediatric and Adolescent Diabetes (http://www.ispad.org/) Juvenile Diabetes Research Foundation International (http://www.jdrf.org/) National Institute for Diabetes and Digestive and Kidney Disease (http://www.niddk.nih.gov)
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INDICATOR CATEGORY	Prevalence of Diabetic Retinopathy Diabetes-related Complications
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GENERAL DEFINITION	The percentage of persons with diabetes who have been diagnosed with diabetic retinopathy.
RATIONALE	Diabetes is the leading cause of blindness among working age adults. This measure provides information about the prevalence of an intermediate outcome of uncontrolled diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective.
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association • Perspectives in Disease Prevention and Health Promotion Guidelines for Diabetic Eye Disease Control -- Kentucky
DATA SUMMARY	<ul style="list-style-type: none"> • Blindness Caused by Diabetes -- Massachusetts, 1987-1994 • CE Basch, EA Walker, CJ Howard, H Shamoon and P Zybert. (1999). The effect of health education on the rate of ophthalmic examinations among African Americans with diabetes mellitus. American Journal of Public Health, 89(12): 1878-1882 • Harris MI, Klein R, Cowie CC, Rowland M, & Byrd-Holt DD. (1998). Is the risk of diabetic retinopathy greater in non-Hispanic Blacks and Mexican Americans than in Non-Hispanic Whites with Type 2 Diabetes? Diabetes Care, 21(8): 1230-1235. • Undiagnosed Diabetes and Related Eye Disease in Mexican-Americans -- A Call for Increased Detection • Vision Problems in the U.S. Vision Problems State by State Prevalence of Adult Vision Impairment and Age-Related Eye Disease in America
RELATED LINKS	<ul style="list-style-type: none"> • American Academy of Ophthalmology (http://www.aao.org) • American Optometric Association (http://www.aoanet.org) • Diabetic Retinopathy Foundation (http://www.retinopathy.org/) • Healthy Vision 2010 (http://www.healthyvision2010.org/exams/dee.htm) • National Eye Institute (http://www.nei.nih.gov/) • Prevent Blindness America (http://www.preventblindness.org)
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INDICATOR **Prevalence of End-Stage Renal Disease**
CATEGORY **Diabetes-related Complications**

GENERAL DEFINITION	The percentage of the general population reporting that they have kidney failure requiring renal dialysis or renal transplantation, with diabetes as the primary cause of the disease.
RATIONALE	End-stage renal disease is a major cause of hospitalization, disability, morbidity, and mortality for people with diabetes. This outcome measure provides information about one consequence of long-term uncontrolled diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC CSTE Indian Health Service
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	Objective 4.7: To reduce kidney failure due to diabetes.
	<p>BASELINE 129 reported persons with ESRD attributable to diabetes per million population (USRDS, age-adjusted, 1997).</p> <p>TARGET 78 reported persons with ESRD attributable to diabetes per million population.</p>
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association
DATA SUMMARY	<ul style="list-style-type: none"> "Forecast of the Number of Patients with End-Stage Renal Disease in the United States to the Year 2010" Data summaries available from USRDS Diabetes Surveillance System End-Stage Renal Disease Attributed to Diabetes Among American Indians/Alaska Natives With Diabetes --- United States, 1990--1996 Forum of End Stage Renal Disease Networks USRDS Renal Data Extraction and Reference (Render)
RELATED LINKS	<ul style="list-style-type: none"> CDC National Center for Chronic Disease Prevention and Health Promotion (http://www.cdc.gov/diabetes/) Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health (http://www.niddk.nih.gov) National Kidney Foundation (http://www.kidney.org) University of Michigan Kidney and Epidemiology Cost Center (http://www.med.umich.edu/kidney/) USRDS Coordinating Center Contacts (http://www.usrds.org/contacts.htm)
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INDICATOR CATEGORY	Prevalence of Foot Ulcers Diabetes-related Complications
GENERAL DEFINITION	The percentage of persons with diabetes who report ever having a foot ulcer.
RATIONALE	Diabetes is the leading cause of non-traumatic lower extremity amputations. The presence of foot ulcers increases is linked to an increased risk for lower extremity amputation. This measure provides information about the prevalence of an intermediate outcome of poorly controlled diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	Objective 5-9: To reduce the frequency of foot ulcers in persons with diabetes. (Developmental)
	BASELINE To be determined
	TARGET To be determined
STANDARDS OF CARE	• American Diabetes Association
DATA SUMMARY	<ul style="list-style-type: none"> • Aguiar ME, Burrows NR, Wang J, Boyle JP, Geiss, LS, & Engelgau MM. (2003). History of foot ulcer among persons with diabetes – United States, 2000-2002. MMWR 52(45): 1098-1102. • Armstrong DG & Lavery LA. (1998). Diabetic Foot Ulcers: Prevention, Diagnosis, and Classification. American Family Physician.
RELATED LINKS	<ul style="list-style-type: none"> • Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) • Lower Extremity Amputation Prevention Program, Bureau of Primary Health Care, Division of Programs for Special Populations (http://bphc.hrsa.gov/leap/) • The American Podiatric Medical Association (http://www.apma.org/diabetes01pub.htm)
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INDICATOR **Regular Physical Activity - Primary Prevention in Adults**

CATEGORY **Lifestyle**

GENERAL DEFINITION The percentage of the adult population without diabetes who report engaging in a regular physical activity regimen.

RATIONALE Regular physical activity is associated with improved carbohydrate metabolism and insulin sensitivity, and therefore can contribute to the prevention of Type 2 diabetes. This lifestyle indicator provides information about the need for programs to promote physical activity its role in diabetes prevention.

ORGANIZATION(S) RECOMMENDING THE INDICATOR CDC

DDT NATIONAL OBJECTIVE This indicator does not directly link to any of the current 7 national objectives. Future objectives may include recommendations for the promotion of wellness, including physical activity, among persons at-risk for diabetes (primary prevention).

HP 2010 OBJECTIVE Objective 22-2: To increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.

BASELINE Thirty-two percent of adults aged 18 years and older engaged in moderate physical activity for at least 30 minutes 5 or more days per week in 1997 (NHIS, age-adjusted, 1997).

TARGET Fifty percent of adults engaging in moderate physical activity for at least 30 minutes 5 or more days per week.

STANDARDS OF CARE • American Diabetes Association

DATA SUMMARY

RELATED LINKS

- American Heart Association
(<http://www.americanheart.org/presenter.jhtml?identifier=2155>)
- Healthy People 2010
(<http://wonder.cdc.gov/data2010/focus.htm>)
- National Heart, Lung, and Blood Institute
(http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/phy_act.htm)
- National Institute of Diabetes and Digestive and Kidney Diseases: Physical Activity and Weight Control
(<http://www.niddk.nih.gov/health/nutrit/pubs/physact.htm>)
- Physical Activity and Good Nutrition: Essential Elements to Prevent Chronic Diseases and Obesity
(http://www.cdc.gov/nccdphp/aag/aag_dnpa.htm)
- President's Council on Physical Fitness and Sports
(<http://www.fitness.gov/>)
- WHO International
(<http://www.who.int/hpr/physactiv/>)

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INDICATOR Regular Physical Activity - Secondary Prevention in Adults with Diabetes

CATEGORY Lifestyle

GENERAL DEFINITION	The percentage of adults with diabetes who report engaging in a regular physical activity regimen.
RATIONALE	Regular physical activity is associated with improved carbohydrate metabolism and insulin sensitivity, and therefore can contribute to the prevention of complications of diabetes. This lifestyle indicator provides information about the need for programs to promote physical activity among persons with diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC CSTE Indian Health Service
DDT NATIONAL OBJECTIVE	This indicator links to the Division of Diabetes Translation (DDT) National Objective to succeed in establishing linkages for promotion of wellness, physical activity, weight and blood pressure control and smoking cessation for persons with diabetes.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective specific to persons with diabetes.
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association American Heart Association
DATA SUMMARY	
RELATED LINKS	<ul style="list-style-type: none"> American Heart Association (http://www.s2mw.com/heartofdiabetes/diabetes.html) National Heart, Lung, and Blood Institute (http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/phy_act.htm) National Institute of Diabetes and Digestive and Kidney Diseases: Physical Activity and Weight Control (http://www.niddk.nih.gov/health/nutrit/pubs/physact.htm) Physical Activity and Good Nutrition: Essential Elements to Prevent Chronic Diseases and Obesity (http://www.cdc.gov/nccdphp/aag/aag_dnpa.htm) President's Council on Physical Fitness and Sports (http://www.fitness.gov/) Surgeon General's Report on Physical Activity and Health (http://www.cdc.gov/nccdphp/sgr/sgr.htm)
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INDICATOR CATEGORY	Self-Blood Glucose Monitoring Diabetes Self-care				
GENERAL DEFINITION	The percentage of people with diabetes who self-monitor their blood glucose levels to facilitate reaching glucose goals.				
RATIONALE	Self-monitoring of blood glucose is important for assessing the efficacy of treatment and to guide changes in medical nutrition therapy, exercise, and medications to achieve the best possible glucose control. This is important to prevent acute glycemic reactions and long-term diabetes complications. This process measure provides information about diabetes self-management.				
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC Indian Health Service				
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.				
HP 2010 OBJECTIVE	Objective 5-17: To increase the proportion of adults with diabetes who perform self-blood-glucose-monitoring at least once daily. <table> <tr> <td>BASELINE</td><td>Forty-three percent of adults aged 18 years and older with diabetes who reported that they checked their blood for glucose or sugar by themselves or by a family member or friend at least once per day (BRFSS, age-adjusted, 1998).</td></tr> <tr> <td>TARGET</td><td>Sixty percent of adults aged 18 years and older with diabetes performing self-blood-glucose-monitoring at least once daily.</td></tr> </table>	BASELINE	Forty-three percent of adults aged 18 years and older with diabetes who reported that they checked their blood for glucose or sugar by themselves or by a family member or friend at least once per day (BRFSS, age-adjusted, 1998).	TARGET	Sixty percent of adults aged 18 years and older with diabetes performing self-blood-glucose-monitoring at least once daily.
BASELINE	Forty-three percent of adults aged 18 years and older with diabetes who reported that they checked their blood for glucose or sugar by themselves or by a family member or friend at least once per day (BRFSS, age-adjusted, 1998).				
TARGET	Sixty percent of adults aged 18 years and older with diabetes performing self-blood-glucose-monitoring at least once daily.				
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Association of Clinical Endocrinologists • American Diabetes Association 				
DATA SUMMARY	<ul style="list-style-type: none"> • Diabetes Surveillance System • Harwell TS, Moore K, Madison M, Powell-Taylor D, Lundgren P, Smilie JG, Acton KJ, Helgersen SD, Gohdes D. (2001). Comparing self-reported measures of diabetes care with similar measures from a chart audit in a well-defined population. American Journal of Medical Quality, 16(1): 3-8. • Levels of Diabetes-Related Preventive-Care Practices --- United States, 1997--1999 • Preventive-Care Practices Among Persons with Diabetes -- United States, 1995 and 2001 				
RELATED LINKS	<ul style="list-style-type: none"> • Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) • Take Charge of Your Diabetes (Patient education material) (http://www.cdc.gov/diabetes/pubs/tcyd/ktrack.htm) 				
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INDICATOR CATEGORY	Smoking - Primary Prevention Lifestyle
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GENERAL DEFINITION	The percentage of people without diabetes who currently smoke cigarettes.								
RATIONALE	Smoking may have a role in the development of Type 2 diabetes. This lifestyle indicator provides information about the need for programs to promote smoking cessation among persons who have not been diagnosed with diabetes.								
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC								
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the current 7 national objectives. Future objectives may include recommendations for the promotion of wellness, including smoking cessation, among persons at-risk for diabetes.								
HP 2010 OBJECTIVE	<p>Objective 27-1: To reduce tobacco use by adults.</p> <table border="0"> <tr> <td style="text-align: center;">BASELINE</td><td>Objective 27-1a: Twenty-four percent of adults age 18 years and older smoke cigarettes (NHIS, age-adjusted, 1998).</td></tr> <tr> <td style="text-align: center;">TARGET</td><td>Objective 27-1a: Twelve percent of adults age 18 years and older smoke cigarettes.</td></tr> </table> <hr/> <p>Objective 27-2: To reduce tobacco use by adolescents.</p> <table border="0"> <tr> <td style="text-align: center;">BASELINE</td><td>Objective 27-2b: Thirty-five-percent of students in grades 9-12 smoked cigarettes in the past month (YRBSS, 1999).</td></tr> <tr> <td style="text-align: center;">TARGET</td><td>Objective 27-2b: Sixteen percent of students in grades 9-12 smoking cigarettes in the past month.</td></tr> </table>	BASELINE	Objective 27-1a: Twenty-four percent of adults age 18 years and older smoke cigarettes (NHIS, age-adjusted, 1998).	TARGET	Objective 27-1a: Twelve percent of adults age 18 years and older smoke cigarettes.	BASELINE	Objective 27-2b: Thirty-five-percent of students in grades 9-12 smoked cigarettes in the past month (YRBSS, 1999).	TARGET	Objective 27-2b: Sixteen percent of students in grades 9-12 smoking cigarettes in the past month.
BASELINE	Objective 27-1a: Twenty-four percent of adults age 18 years and older smoke cigarettes (NHIS, age-adjusted, 1998).								
TARGET	Objective 27-1a: Twelve percent of adults age 18 years and older smoke cigarettes.								
BASELINE	Objective 27-2b: Thirty-five-percent of students in grades 9-12 smoked cigarettes in the past month (YRBSS, 1999).								
TARGET	Objective 27-2b: Sixteen percent of students in grades 9-12 smoking cigarettes in the past month.								
STANDARDS OF CARE	<ul style="list-style-type: none"> American Diabetes Association 								
DATA SUMMARY									
RELATED LINKS	<ul style="list-style-type: none"> American Lung Association (http://www.lungusa.org/) CDC Tobacco Information and Prevention Source (http://www.cdc.gov/tobacco) Healthy People 2010 (http://wonder.cdc.gov/data2010/focus.htm) Surgeon General Reports on Smoking (http://www.cdc.gov/tobacco/sgr/) 								
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INDICATOR **Smoking - Secondary Prevention in Adults with Diabetes**
CATEGORY **Lifestyle**

GENERAL DEFINITION	The percentage of persons with diabetes who currently smoke cigarettes.
RATIONALE	Persons with diabetes are at increased risk of complications from cardiovascular disease, such as stroke, angina, and congestive heart failure. Smoking tobacco further increases this risk. Smoking increases the risk of renal damage and is associated with worsening retinal disease, especially in young smokers. This lifestyle indicator provides information about the need for programs to promote smoking cessation among persons with diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC Indian Health Service National Diabetes Quality Improvement Alliance
DDT NATIONAL OBJECTIVE	This indicator links to the Division of Diabetes Translation (DDT) National Objective to succeed in establishing linkages for promotion of wellness, physical activity, weight and blood pressure control and smoking cessation for persons with diabetes.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective.
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association • American Heart Association
DATA SUMMARY	
RELATED LINKS	<ul style="list-style-type: none"> • American Association of Diabetes Educators (http://www.aadenet.org/) • American Lung Association (http://www.lungusa.org/) • CDC Tobacco Information and Prevention Source (http://www.cdc.gov/tobacco) • Surgeon General Reports on Smoking (http://www.cdc.gov/tobacco/sgr/)
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INDICATOR Unhealthy Days among Adults with Diabetes
CATEGORY Diabetes-related Complications

GENERAL DEFINITION	The percentage of persons with diabetes who report that they have at least 15 unhealthy days in the past 30 days.
RATIONALE	Persons with diabetes are at increased risk for complications that result in lower extremity amputations, blindness, and other types of physical disability in addition to increased stress, depression, and emotional problems that may be associated with unhealthy days. This measure provides information about the prevalence of one potential intermediate outcome of uncontrolled diabetes.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective.
STANDARDS OF CARE	
DATA SUMMARY	<ul style="list-style-type: none"> • Health-Related Quality of Life --- Los Angeles County, California, 1999 • Health-Related Quality of Life --- Puerto Rico, 1996--2000 • Health-related quality of life data • Prevalence data
RELATED LINKS	<ul style="list-style-type: none"> • CDC Disability and Health (http://www.cdc.gov/ncbddd/dh/) • Measuring Healthy Days - Population Assessment of Health-Related Quality of Life (http://www.cdc.gov/nccdphp/hrqol/pdfs/mhd.pdf) • Notice to Readers: Publication of Report on Validation and Use of Measures of Health-Related Quality of Life (http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5004a4.htm) • Prevalence of impairments, disabilities, handicaps and quality of life in the general population: a review of the recent literature (http://www.who.int/bulletin/pdf/2001/issue11/bu0467.pdf)
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INDICATOR **Visual Foot Exam (self or someone other than health professional)**
CATEGORY **Diabetes Self-care**

GENERAL DEFINITION	The percentage of persons with diabetes who have checked their feet for sores or had someone other than a health professional check their feet for irritations.
RATIONALE	Persons with diabetes are at increased risk of hospitalization, morbidity, and mortality associated with lower extremity disease. Routine foot examination among persons with diabetes increases the likelihood of early identification of foot ulcers and, ultimately, decreases the risk of lower extremity amputation. This process measure provides information about diabetes self-management.
ORGANIZATION(S) RECOMMENDING THE INDICATOR	CDC
DDT NATIONAL OBJECTIVE	This indicator does not directly link to any of the 7 national objectives.
HP 2010 OBJECTIVE	This indicator is not directly linked with an HP 2010 objective.
STANDARDS OF CARE	<ul style="list-style-type: none"> • American Diabetes Association • American Podiatric Medical Association
DATA SUMMARY	<ul style="list-style-type: none"> • Diabetes Surveillance System
RELATED LINKS	<ul style="list-style-type: none"> • Guide to Community Preventive Services (http://www.cdc.gov/diabetes/projects/community.htm) • Lower Extremity Amputation Prevention Program, Bureau of Primary Health Care, Division of Programs for Special Populations (http://bphc.hrsa.gov/leap/) • National Diabetes Information Clearinghouse (http://www.niddk.nih.gov/health/diabetes/ndic.htm) • The American Podiatric Medical Association (http://www.apma.org/diabetes01pub.htm)
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